

Flightfax

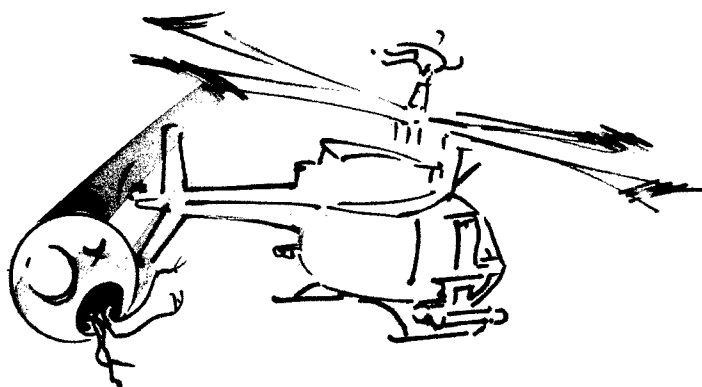
ARMY AVIATION
RISK-MANAGEMENT
INFORMATION

OCTOBER 1997 ♦ VOL 26 ♦ NO 1

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**Some errors can
blow the whole
ballgame...**

**PLAY
IT
SAFE**



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[DTIC QUALITY INSPECTED 2]
**Make it a
preflight practice to
walk around and
touch anything
that could fall
off in flight.**

Cowlings away!

As an Aviation System Manager at the Army Safety Center, I have a lot of accident reports cross my desk each week. My job, among other things, is to look for trends involving aircraft mishaps. In the last few months, I've noticed a number of mishaps involving aircraft parts separating during flight. This started me wondering, "What's happening out there?"

Are flight crews not securing cowlings properly or inadvertently leaving them open? Could there be a problem with maintenance procedures, or is there a materiel problem such as worn latches that allow cowlings or panels to come open during flight? As I pondered these questions, I recalled once seeing an AH-1G taking off with its ammo bay door open. As I watched, a flight jacket blew out and slowly fluttered to the ground. "Boy," I laughed to myself, "The guy who just lost his jacket is not going to be very happy when he gets where he's going and finds out he no longer has a flight jacket." (It was 5 degrees above zero.)

As I began to think back over my own career, I remembered that I had once left an engine cowling open myself. I was a brand-new WO1 fresh out of flight school and had just made PIC in the OH-58A.

I was supporting the Armor School at Fort Knox, KY. My mission that day was to fly an O-6 around a training area where new second-lieutenants were learning how to operate M-60 tanks over uneven terrain. It was a pretty simple day mission for a simple-minded OH-58 pilot.

After being in the air for 10 minutes, the O-6 wanted me to land—for the fourth time—so he could get out and conduct a one-way discussion with a tank crew who had just run over some pine trees that were off limits. As the O-6 walked away from the aircraft, he turned and gave me the old hand-across-the-neck signal. As I shut down the aircraft, I thought to myself, "So this is aviation—been out here half a day and logged 0.8 hours."

Not knowing how long we'd be there, I walked around the aircraft and opened the engine cowlings. An old OH-58 pilot had once told me that you could cool down the engine faster by opening both engine cowlings.

Of course, my passenger returned sooner than I had anticipated and was eager to get airborne. I did a quick walk-around, securing the engine cowling on the pilot's side, and proceeded to crank the aircraft. As we climbed through 500 feet, I got a radio call from the ground commander stating that our engine cowling was open.

I said, "Say again?", not believing what I had

heard. To my dismay, he said it again: "Your engine cowling is open."

I had the distinct pleasure of telling the O-6 that we had to land immediately. After doing so and shutting down the aircraft, I sheepishly got out and walked around to the left side of the aircraft. There in front of me, just as I had left it, was an open engine cowling. Boy, was I embarrassed. But that wasn't the half of it. My O-6 passenger said, "This is the first precautionary landing I have ever been in, and it was for an open engine cowling." Although there was no damage to the aircraft, I cannot say the same about my pride.

But I digress.

I became curious as to how many other pilots had either left cowlings open, had cowling latches fail, or just plain had something come off the aircraft in flight. I decided to do a data pull of Class A-E mishaps for the past 3 years and see what I could find. Listed

FY 95

MH/UH-60A/L: 17 cases

- Cargo door/window departed aircraft
- Nose compartment door blew open
- Dzus fastener came off and hit aircraft

MH/CH-47D/E: 14 cases

- Work platform came open in flight
- Crew door/window fell off in flight
- Emergency escape panel missing after flight

AH-64A: 8 cases

- Transmission access panel came open in flight
- Engine cowling came open in flight
- Catwalk access panel came open in flight

C-12C/F/L and O-5: 6 cases

- Engine cowling came open in flight
- Door came open in flight

AH-1E/F/S: 5 cases

- Dzus fastener fell off and hit aircraft
- Panel missing after flight
- Bag fell out of ammo bay during flight

OH-58A/C/D: 4 cases

- Armor side panel separated in flight
- Crew door came off in flight
- MMS upper shroud separated in flight

below is what turned up in terms of numbers and the top three causes reported for each aircraft each year.

Summary

Due to space limitations, I did not give you all the cases listed in the data base (more than 130), nor did I list all the types of aircraft involved. What I tried to do was give you a general overview of what's happening with regard to in-flight loss of components for the aircraft you fly.

It's impossible to say that every one of these cases was the result of human failure; there are going to be latch failures and such. And, besides, my intent is not to point fingers or assign blame. My intent is to make you aware of a problem that involves every type of aircraft the Army owns and operates.

Every member of the Army aviation team has an important part to play in reducing these mishaps.

Maintainers have to follow by-the-book

maintenance procedures, ensure that cowlings are secured after maintenance is performed, and check latches and dzus fasteners not only for security but also for wear and tear.

Crews have the last look and the final say about the aircraft they are about to fly. A final walk around the aircraft is an important part of the preflight. It should be a hands-on walk around—that means touching anything that could come off during flight. It may sound like extra time and effort, but sitting in this seat looking at accident reports that come across my desk every day, I can tell you that there's only a fine line between a Class E mishap and a Class A accident. A cowl through a tail rotor can change your life forever.

—CW5 Bill Ramsey, Aviation Section, Army Safety Center, DSN 558-2785 (334-255-2785), ramseyw@safety-emh1.army.mil

FY 96

MH/CH-47D/E: 12 cases

- Bubble window separated in flight
- Clamshell door separated in flight
- Loading ramp/tongue or crew door fell off in flight (Note: CH-47-96-ASAM-09, 121316Z Sep 96, addressed lower latch pin failure allowing clamshell doors to come off in flight.)

MH/UH-60A/L: 8 cases

- APU door left aircraft in flight
- Cargo door window missing after flight
- Fairing cover came loose in flight

AH-64A: 8 cases

- Engine cowling fell off in flight
- Turtle-back door came open in flight
- Drive-shaft cover left open

C-12C/D/F, 0-5, C-26B: 6 cases

- Engine cowling opened in flight
- Doors opened in flight
- Avionics door separated in flight

UH-1H/V: 5 cases

- Dzus fasteners fell off and hit aircraft
- Cargo door separated in flight
- Tail-rotor cover separated in flight

OH-58A/C/D: 4 cases

- Door fell off during flight (one case resulted in Class A accident with 2 fatalities)
- MMS upper shroud departed aircraft during flight

FY 97 through 3rd quarter

AH-64A: 9 cases

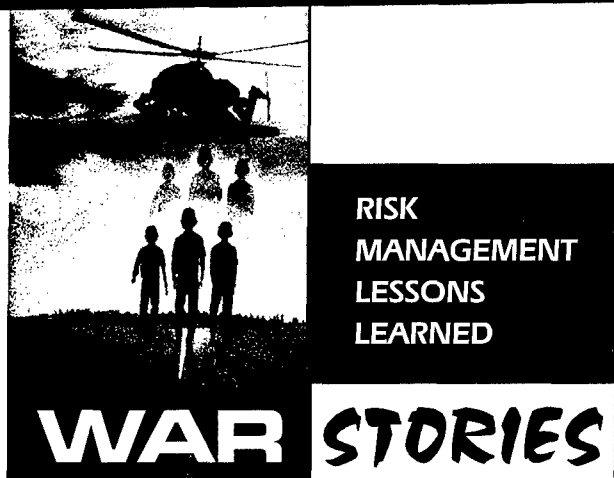
- Engine cowling opened in flight
- TADDS shroud missing after flight
- Drive-shaft cover came open in flight

MH/CH-47D/E: 8 cases

- Escape hatch fell off in flight
- Crew door fell off in flight
- Ramp tongue separated in flight

MH/UH-60A/L: 4 cases

- Tail-rotor drive-shaft cover left open
- Nose compartment door came open
- APU access door missing after flight



Near miss

Friday was a holiday, so Jim and I planned to fly the long dual cross-country flight required for his civilian instrument rating. Jim had been my student in the private pilot course and had matured into an excellent pilot. It was with great pride and pleasure that I looked forward to these dual-instrument flights.

The skies were clear, with unlimited visibility. Under the hood, Jim was going to miss a beautiful day.

My mind drifted back to the previous Sunday, a day much like this one. Two pilots from our Redstone Arsenal military flying club were flying this very aircraft, also practicing instrument flight. They were 4000 feet above the Gadsden airport/VOR when the safety pilot looked down and saw two aircraft depart intersecting runways at the same time. As he watched, they met at 300 feet in the air. All four souls aboard lost their lives in that accident.

It seemed to me that the odds were high against being at the same place at the same time on a severe-clear day and not seeing each other. Knowing that most accidents result from a series of small incidents, I wondered what might have contributed to that one. I made a mental vow to keep my head and eyes outside the cockpit, especially around airports.

The first leg of our training flight was to Nashville, where we hoped to get the VOR 31 approach. We planned for a touch-and-go, followed by another IFR leg to Chattanooga. Just past Shelbyville we were handed off to Nashville Approach, who promptly announced that there wasn't going to be any touch-and-goes now, due to heavy traffic. We could either come on and land or they would be glad to offer us an approach to another airport. We opted for Smyrna and were given a vector for the ILS 32 approach.

As we eased over Murfreesboro airport, I was

working hard at keeping my vow of maintaining a constant watch for other aircraft. As it turned out, none were pointed out, and none were seen.

Assigned a heading of 330° to join the localizer and track inbound, we were cleared for the approach. We were 3 miles from the outer marker when suddenly Approach reported, "Cessna Three Golf Quebec, there may be another aircraft very near you. Looks like I'm getting two radar echoes."

Well, if I was looking before, now I was really looking! "No," I reported back, "I don't see any traffic."

"Okay," said Approach, "It must be a double echo. Radar service is terminated. Change to advisory frequency is approved."

A quick punch of the buttons, and Jim broadcast that we were over the outer marker, ILS 32 inbound. In one heartbeat, we heard another voice report, "Over the outer marker, ILS 32 inbound."

Jim snatched off his view-limiting hood and pointed directly under the left main gear on his side. Less than 50 feet away was our "wingman," practicing ILS approaches just like we were. We carefully eased away and initiated a missed approach.

We reported our near miss to Approach and he said, "Okay, turn right heading 090, climb and maintain 5000, vectors on course to Chattanooga."

On reflection

What could I have done to avoid this near miss? We could have punched up the advisory frequency in the "both" position and monitored it sooner. In that way, if the other aircraft was broadcasting his position and intentions, we would have known where to look for him. I could have had Jim look out his window to help find the traffic instead of what I suspect many safety pilots and instructors do—the old "You fly, I'll look." Jim might have seen the aircraft at the first call from Approach. I might have offered to put my transponder in standby for a moment to see if Approach still got a transponder return.

The other guy was as legal as I was. I, too, have gone to uncontrolled fields to practice approaches without the hassle of ATC. However, if I ever do it again, you can bet I'll have Approach on the second radio and listen for anyone else out there flying the approach with me.

Although this incident happened to me as a civilian pilot flying a private airplane, a similar incident could happen to an Army aviator flying an official training mission. I suspect that it already has.

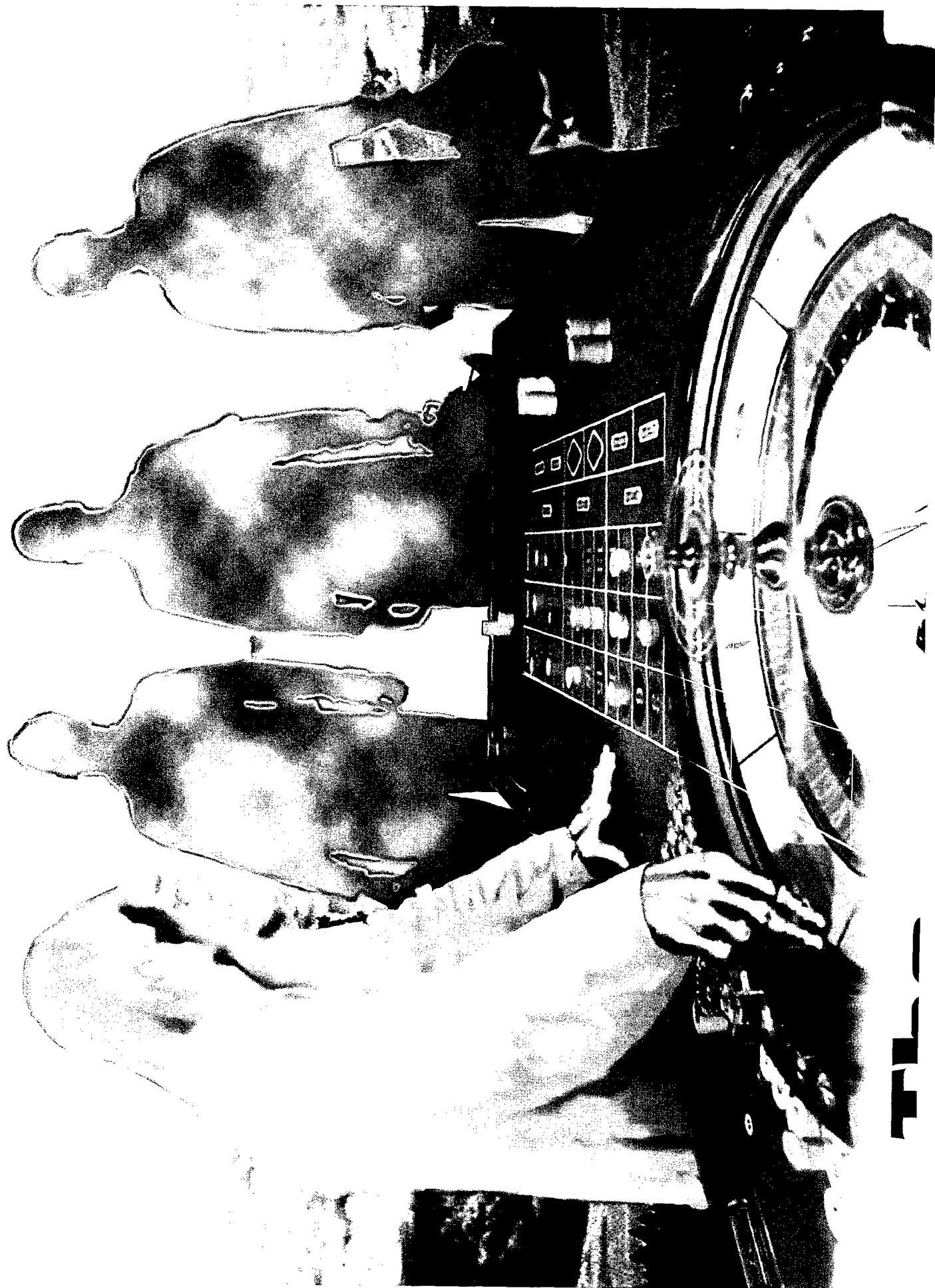
—Thomas A Chaffee, DAC, Redstone Arsenal, AL, DSN 788-6132 (205-842-6132)

Pull-out posters pages 5-8

BAD... can turn to
WORST



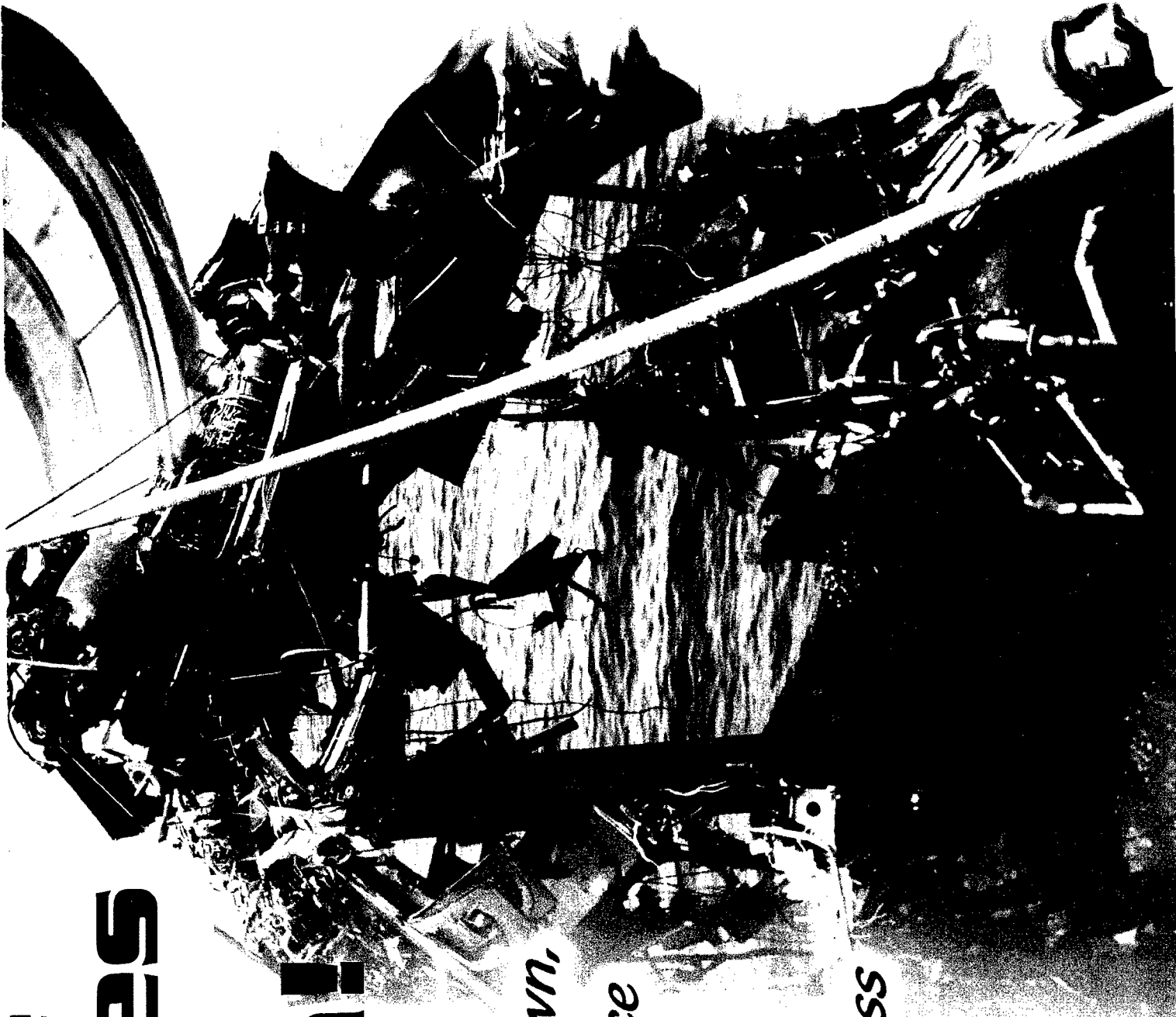
MSA



Life Stakes are high!

*When the
chips are down,
performance
planning
pays off.
Anything less
is just a
gamble.*

U.S. Army Safety Center
<http://safety.army.mil>



YOURSELF

**Even if it's legal to go,
how prudent is it?**



What if it's right at the limit—just good enough? What if it turns to soup 15 minutes after takeoff? What will you do if you can't land and wait it out? What if you decide to turn around, and there ain't no turning around—you bump into the clouds? What will you do now? Do you have a plan? Do you have enough fuel? Are you prepared to deal with IMC?

**Am I truly prepared to deal
with IMC?**



Do you have excellent proficiency? Are you totally prepared? Do you have a plan that you've coordinated with and briefed to the rest of the aircraft? Is the aircraft properly equipped? Do you have nav aids and instrument approaches? What's the plan if IMC-induced spatial disorientation strikes you or another crewmember?

**How bad does it have to be
before I say no?**



If you routinely fly in the worst weather that's legal, it's only a matter of time until you find yourself inadvertently IMC. And if you're not fully prepared, this could be where you become a statistic. Remember, accidents resulting from inadvertent IMC are very rarely minor accidents.



U.S. ARMY SAFETY CENTER

<http://safety.army.mil>

OH-58D(I) ground operation

Be aware of the "caution" in TM 55-1520-248-10 that limits OH-58D(I) cyclic movements to 2 inches maximum displacement from center during ground operation. Stick movement any greater while the aircraft is on the ground with rotors turning can cause main rotor yoke, main cone set, or main rotor mast loads to exceed endurance limits used to calculate parts life. Hence, ground operation outside the 2-inch limit can shorten component life as well as increase the risk of rotor strike.

POC: Mr. Ron Boyce, Office of the PM-Kiowa Warrior, St. Louis, DSN 693-2932 (314-263-2932)

ALSE user conference coming up

Aviation life support equipment technicians and other Aviation personnel will be attending an ALSE User Conference 4-6 November 1997 at Fort Rucker. Hosted by the Directorate of Combat Developments (DCD), the Conference will focus on protective equipment such as clothing and helmets, survival vests, body armor, the Combat Survivor/Evader Locator Program, the Aircrew Modular Survival and Cockpit Airbag Systems, and laser eye protection.

For more information, call or e-mail Mr. Bernie Roberson, DSN 558-9130/3154 (334-255-9130-3154), bernard_roberson@rucker-emh4.army.mil.

Free computer hardware

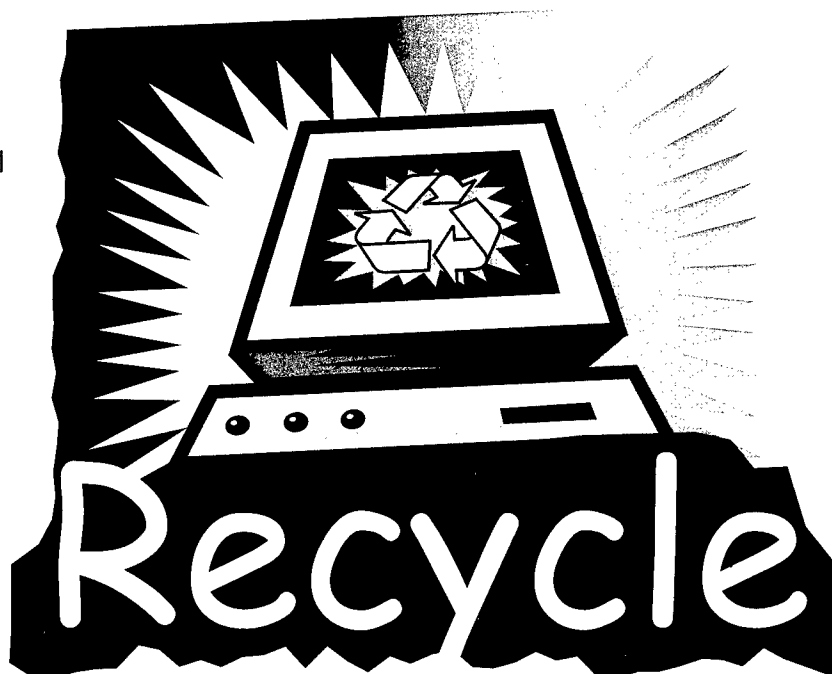
Looking to update computer technology in your unit but don't have much money to spend? Check out the Defense Automation Resources Management Program, which is part of the Defense Information Systems Agency. The program annually saves millions of dollars by transferring excess computer hardware within DOD and other agencies. The program prolongs the life of DOD computers and reduces procurement and operating costs for acquisition of new equipment.

The program office lists the equipment on its Information Technology Excess Catalog on the worldwide web at

<http://www.disa.mil/cio/darmp/excess.html>

Items include disk drives, printers, computers, monitors, scanners, and other equipment. The catalog lists every piece of equipment in detail and includes points of contact, phone numbers, and locations. Customers pay only shipping costs. Information about the program is available from the Defense Information Systems Agency, DSN 426-1904 (703-696-1904).

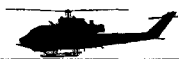
POC: CW5 Scott Johnson, Aviation Branch Safety Office, Fort Rucker, DSN 558-3000 (334-255-3000)



Accident briefs

Information based on preliminary reports of aircraft accidents

AH1



Class C

F series

■ During cockpit runup checks on maintenance test flight, CP (front seat) attempted to remove safeing pin on explosive canopy system. During this attempt, PI rotated handle and attempted to pull upward to release pin when he inadvertently activated the linear explosive system. Canopy exploded and functioned as designed.

■ Engine oil temperature went to 135°C during engine runup and systems check. Aircraft was shut down without further incident. Oil cooling and thermal systems to be inspected for malfunction; "hot engine" inspection pending.

Class E

F series

■ During hover taxi to runway, transmission oil bypass and master caution lights came on. Maintenance replaced transmission oil bypass switch.

AH64



Class C

A series

■ TADS cowlings were lost in flight during gunnery operations. Cowling was destroyed.

■ Crew had been conducting aerial gunnery with intermittent landings. Postflight inspection revealed damage to one main-rotor and all four tail-rotor blades. There was no evidence of sudden stoppage, and crew reported no vibrations or unusual occurrences during flight.

■ During Table 10 gunnery training, round failed to extract in 30mm weapon system, resulting in detonation of subsequent round. Weapon was destroyed.

■ The morning after live-fire training, range control personnel discovered four HMMWVs destroyed by fire. Components of hellfire missile were found in vicinity. Incident is under investigation.

■ Postflight inspection after 4-hour day/NVG training flight revealed

collapsed tail wheel strut and minor damage to stabilator. Suspect hard landing. Maintenance replaced tail wheel strut assembly.

Class D

A series

■ During postflight inspection, crew found damage to UHF and lower IFF antennas. UHF radio had failed after aircraft landed.

Class E

A series

■ Crew heard series of loud pops during cruise and determined that No. 2 engine was experiencing compressor stall. Crew initiated appropriate emergency procedure. Within 5 seconds of onset of emergency, engine failed. Crew secured engine and performed roll-on landing without further incident. Maintenance determined that engine failed due to FOD. Engine was replaced.

■ No. 2 engine would not start after refueling. Maintenance inspection revealed No. 2 engine air turbine starter shaft sheared. Starter was replaced.

■ During runup after refueling, PI noticed fluctuations (98 to 104 percent) in Np readings for both engines, followed by a shudder felt by both crewmembers. No increase in Nr or other gauges was noticed. Fluctuation followed by shudder repeated 11 times in 15 minutes. Inspection revealed that No. 1 engine control unit harness connector was almost completely backed off.

CH47



Class C

D series

■ Maintenance test pilot lowered thrust to "ground detent" position during maintenance test flight autorotation. After decreasing both engines to 60 percent using emergency trim switch and instructing PI to do likewise, MTP noted No. 2 engine N1 reading 60 percent. While attempting to regain N1, he conducted quick rotor rpm check. Upon rechecking cockpit readings, he noted PTIT reading steady at 1100°C. After lowering cover on PTIT trim, MTP announced "power recovery" and shut

down No. 2 engine. Aircraft returned to home base without further incident.

■ During NVG infiltration training, aircraft touched down on upsloping terrain in secondary LZ. Due to sloping terrain, aft ramp was positioned 4 to 6 feet off ground to off-load troops. As crew attempted to center cyclic to arrest droop-stop pounding, aircraft moved aft and left, and right front wheels came off ground. Both crewmembers pulled collective to prevent aircraft from sliding further or tipping. Front wheels rose about 3 feet, resulting in aft ramp's rising 8 to 10 feet off ground. Soldier exiting aircraft sustained broken pelvis upon contact with ground.

Class E

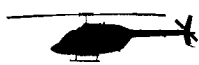
D series

■ Crew was repositioning aircraft for mountain hoist operation while at 12,500 feet msl. When PI attempted to apply forward cyclic, he felt unusual mechanical stop in pitch axis and transferred controls to other pilot, who also felt the stop. Aircraft was repositioned, and, as forward speed increased, problem disappeared. Aircraft was landed without incident. Postflight inspection revealed that both jam indicators were popped on pivoting actuator in aft pylon. Maintenance could not duplicate. Aircraft scheduled to have all upper boost actuators replaced.

■ IP executed simulated engine failure during cruise flight at night by reducing No. 1 emergency engine trim switch. N1 gauge indicated decrease below 60 percent. Flight engineer reported that engine was on fire, and IP immediately performed emergency engine shutdown and discharged fire bottle on No. 1 engine. Aircraft landed without further incident. Maintenance determined that fuel control caused the engine fire. Engine was replaced.

■ During simulated engine failure, normal engine beep trim system failed and would not control rotor rpm on either engine. ECL was returned to flight and rotor rpm was controlled using emergency engine trim. Maintenance replaced No. 1 engine N2 actuator.

OH58



Class C

D(I) series

■ When IP pressed analog test switch during engine-overspeed test, engine flamed out. During coastdown, IP noticed smoke coming from engine exhaust and performed engine shutdown, telling SP to monitor tgt. When IP left aircraft to investigate smoke and notify maintenance, SP noted tgt rising through 270°. When he engaged starter to motor engine, tgt rose rapidly to 1029° for 3 seconds.

Class E

A series

■ After takeoff and during climbout at 350 feet agl and 60 KIAS, PC heard thump from upper left pylon area. Aircraft returned to base and landed without incident. Incident is under investigation; suspect bird strike.

C series

■ Grinding noise was heard in transmission area. CCAD analysis indicated overhaul/rebuild facility incorrectly assembled transmission.

■ Fuel boost and master caution lights came on during hover, and aircraft landed without incident. Maintenance replaced fuel pump cartridge.

■ During climbout, engine power dropped to 95 percent and did not recover. Aircraft was flown at 60 knots back to airfield. Aircraft is undergoing troubleshooting.

■ After normal preflight, runup, and takeoff, aircraft entered flight training area. While slowing to perform training maneuver at 20 feet agl, N2 decreased to 95 percent. Attempts to increase governor resulted in no increase in N2 (N1 was 101 percent). Maintenance inspection found that governor actuator switch had been wired backwards, causing a reverse function for normal input. Switch was rewired properly and aircraft returned to flight.

D(I) series

■ Postflight inspection following gunnery training revealed that three mirror panels from ANLQ-144 were missing. In-flight loss of equipment is being investigated.

■ On base to final approach at night under NVGs, aircraft experienced total hydraulics failure. Crew executed emergency procedures for hydraulics failure, but hydraulics would not return.

IP executed run-on landing to airfield without incident. Maintenance replaced hydraulic pump to transmission oil pump shaft.

■ Left forward crosstube broke during termination of autorotation landing. Crosstube was replaced.

UH1



Class E

H series

■ During cruise flight at 600 feet agl and 80 knots, engine chip detector and master caution lights came on. PI executed immediate precautionary landing to nearest open field and shut down aircraft. Maintenance inspection revealed numerous sizable particles on plug. Engine replaced.

■ During cruise flight, d.c. generator caution light came on. Crew reset main generator and turned it back on. Light, however, remained on. Aircraft returned to airfield and landed without incident. Maintenance replaced main generator regulator.

UH60



Class C

A series

■ During landing to dirt road, aircraft entered brown-out conditions and rolled forward on touchdown. Main rotor blade tip caps hit trees; three tip caps were damaged.

Class D

A series

■ During landing to unimproved area, PC heard loud bang from rear of aircraft. Inspection revealed no damage. Aircraft was flown to home base without incident. Postflight inspection of tail wheel landing gear revealed damage to strut shock assembly.

Class E

A series

■ Minor damage to main rotor tip cap was found during postflight inspection after night unaided exfiltration in confined area.

L series

■ Bundle of pickets and concertina fell from slingload. Investigation revealed that nonstandard load did not maintain integrity due to failure of banding material. Loads were inspected, rigged, and certified IAW FM 5-450-3.

C12



Class C

C series

■ Aircraft was descending on instrument approach in IMC when it encountered icing. Crew reported residual ice although de-ice equipment was used appropriately. Crew then encountered VMC and configured aircraft for normal VMC landing. About 30 feet above runway, aircraft experienced airspeed decay and sink rate; power was applied without success. Aircraft descended vertically from 10 feet and landed hard.

F series

■ Suspecting lightning strike, crew conducted cruise check at 23,000 feet agl. Aircraft was diverted to home station. Postflight inspection revealed dime-sized exit hole in left outboard flap and burnt static wick on outboard tip of right wing. Suspect lightning entered through left prop.

R series

■ Aircraft was on instrument approach when lightning discharged nearby. Postflight inspection revealed damage to left wing tip and right horizontal stabilator.

Class F

N series

■ Sparks were seen coming from exhaust stacks of No. 2 engine during takeoff, and aircraft landed. Engine inspection found damage of at least \$200,000 due to FOD ingestion. (Total damage costs cannot be determined until engine rebuild is completed.)

C26

Class C

B series

■ During GPU start, PI initiated start with "start test switch" due to residual egt indication. At about 15 percent engine speed, he depressed engine start button until egt increased. During normal egt increase, PC noted change in engine acceleration, at which time PI noted low GPU voltage reading. Check revealed that egt had increased to 800°C (maximum starting egt: 770°C). Engine was shut down without further incident.

For more information on selected accident briefs, call DSN 558-2785 (334-255-2785).

Aviation messages

Recap of selected aviation safety messages

Aviation safety-action messages

C-12-97-ASAM-03, 221306Z Aug 97, maintenance mandatory.

A problem has been identified in all KLN-90B global positioning systems (GPS) that could affect course accuracy during GPS approaches at some airports.

The purpose of this message is to notify C-12 operators of a potential hazard to flight and restrict the use of the KLN-90B GPS from GPS instrument approaches until a permanent software correction is fielded.

ATCOM contact: Mr. Robert Brock, DSN 788-8632 (205-842-8632), brock-rd@redstone.army.mil

OH-58-97-ASAM-02, 251347Z Aug 97, maintenance mandatory.

A number of aircraft have experienced starting problems traced to a failure of the cutoff and start modulating valve in the fuel control. The failure may cause fuel restriction to the nozzle during the start sequence and result in a no-start or hot-start condition. (Under flight conditions, no fuel restriction exists if the failure occurs after the fuel control is in "fly" position.)

The purpose of this message is to impose a mandatory maintenance action on all OH-58D aircraft to correct the problem.

ATCOM contact: Mr. Robert Brock, DSN 788-8632 (205-842-8632), brock-rd@redstone.army.mil

UH-60-97-ASAM-17, 131502Z Aug 97, maintenance mandatory.

The UH-60 internal rescue hoist bracket assembly, aluminum structural plate, P/N 70800-02508-108 (cage code 78286) has been identified as cracking from the hole for the stud that holds the high-performance hoist to the forward end of the bracket. This cracking is caused by a pre-loading condition resulting from improper initial installation, subsequent incorrect installation of the hoist, and/or local manufacture, which precludes proper heat treatment or bend radius of the plate.

The purpose of this message is to require a visual inspection of all subject plates for cracking and to determine whether the plate has been locally manufactured. Also required is a visual inspection for cracks in the BL 34.50 beam. All internal rescue hoist bracket assemblies (P/N 70800-02508-046) are to be removed and reinstalled on a one-time basis using the procedure outlined in this ASAM.

ATCOM contact: Mr. Dave Scott, DSN 788-8620 (205-842-8620), scott-dc@redstone.army.mil

substantial damage during firing. When the weapon system was downloaded after the incident, several unfired rounds of ammunition with punctured cartridge cases were found in the forward flex chute. While the incident is still under investigation, a possible scenario is that the cartridge-case punctures occurred during system uploading and the punctures contributed at least partially to the incident.

The purpose of this message is to advise users to closely monitor uploading of 30mm ammunition to detect potential cartridge damage caused by the loader before the ammo is fed into the system.

For assistance, contact your local TACOM logistics assistance representative.

Maintenance-information message

OH-58D-97-MIM-05, 261326Z Aug 97.

Recent tests have demonstrated that part number 3M 8545 (NSN 9390-01-445-9637), a polyurethane protective film, shows superior heat-resistant qualities to those of Estane, part number 406-015-009-101.

The purpose of this message is to outline application instructions for the 3M material.

ATCOM contact: Mr. Kevin Cahill, DSN 897-1389 (205-313-1389)

Maintenance-advisory message

AH-64A-97-MAM-16, 191949Z Aug 97.

Recently, an AH-64A M230 gun sustained

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WS • War Stories, CC • Crew Commo, SF • Shortfax

Class A Accidents through August

		Class A Flight Accidents		Army Military Fatalities	
		96	97	96	97
1ST QTR	October	1	0	0	0
	November	0	0	0	0
	December	0	1	0	0
2ND QTR	January	1	2	0	2*
	February	0	0	0	0
	March	2	2	7	1
3RD QTR	April	1	2	3	2
	May	0	1	0	1
	June	1	3	6	1**
4TH QTR	July	0	1	0	8
	August	1	0	0	0
	September	1		0	
TOTAL		8	12	16	15

*Excludes 1 USAF pilot trainee fatality

**Excludes 1 Air National Guard passenger



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